

Piscassic River Wildlife Habitat Modeling Study
A Research Project of the...

The Nature Conservancy, NH Chapter

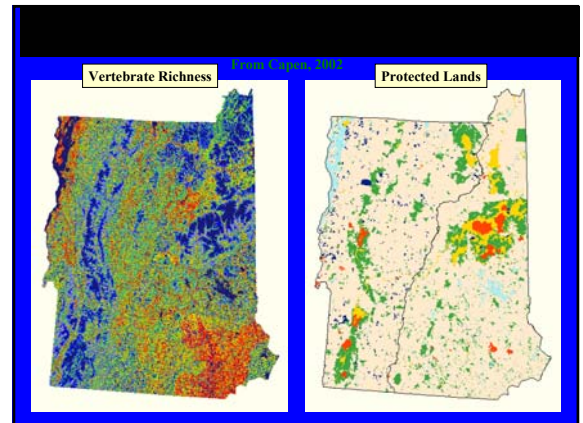
Society for the Protection of NH Forests

Audubon Society of New Hampshire

NH Fish & Game Department, Non-game & Endangered Wildlife Program

NH Living Legacy Project

Funded by the NH Estuaries Project



Two Phase Approach:

Phase 1 – Coarse filter map based on F&G manual.

Identifying & Protecting N.H.'s Significant Wildlife Habitat:

Phase 2 – Species maps.

“Coarse Filter” Scoring System

- 1 Point:
Unfragmented Blocks > 500 acres

Area Sensitive Species



"Coarse Filter" Scoring System

- 1 Point:

Unfragmented Blocks > 500 acres

Open Land & Early Successional Habitats

Grasslands & Old Fields



Grasslands



Old Fields



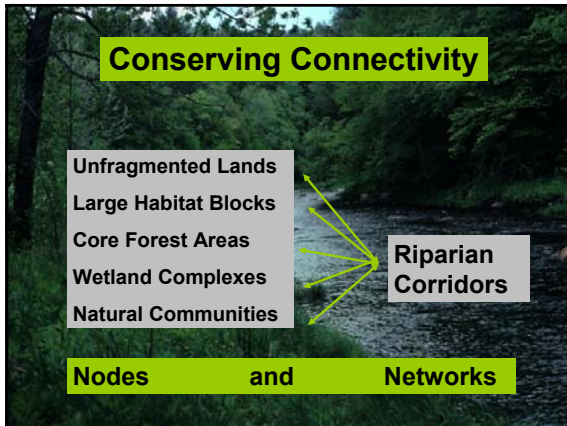
"Coarse Filter" Scoring System

- 1 Point:

Unfragmented Blocks > 500 acres

Open Land & Early Successional Habitats

Riparian & Shoreland Buffers of 300 feet



"Coarse Filter" Scoring System

- 1 Point:
Unfragmented Blocks > 500 acres
Open Land & Early Successional Habitats
Riparian & Shoreland Buffers of 300 feet
All Contiguous Wetlands > 20 acres

Beaver Ponds



Beaver Ponds



"Coarse Filter" Scoring System

- 1 Point:
Unfragmented Blocks > 500 acres
Open Land & Early Successional Habitats
Riparian & Shoreland Buffers of 300 feet
All Contiguous Wetlands > 20 acres
Emergent Wetlands

Secretive Wetland Birds



"Coarse Filter" Scoring System

- 1 Point:

Unfragmented Blocks > 500 acres
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 Riparian & Shoreland Buffers of 300 feet
 All Contiguous Wetlands > 20 acres
 Emergent Wetlands
 Alluvial Soils (as proxy for floodplains)

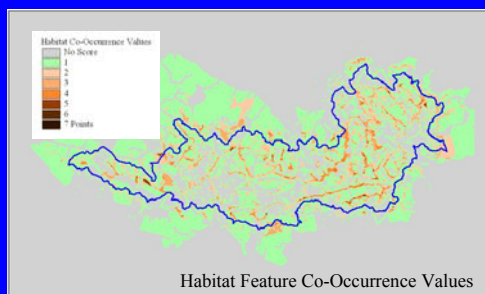
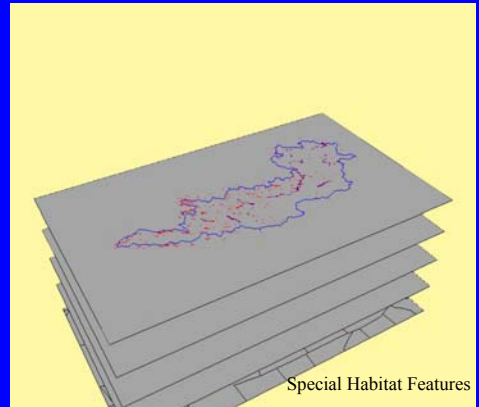
Riparian Areas



"Coarse Filter" Scoring System

- 1 Point:

Unfragmented Blocks > 500 acres
 Open Land & Early Successional Habitats
 Riparian & Shoreland Buffers of 300 feet
 All Contiguous Wetlands > 20 acres
 Emergent Wetlands
 Alluvial Soils (as proxy for floodplains)
 South- and Southwest-facing Slopes



Mapped Species

Reptiles

Blanding's turtle
 Spotted turtle
 Wood turtle
 Eastern hognose snake
 Black racer snake

Grasshopper Sparrow
 Upland Sandpiper
 Blue-winged Warbler
 Golden-winged Warbler
 Whip-Poor-Will
 American Woodcock
 Red-shouldered Hawk
 Osprey

Birds

Pied-billed Grebe
 Common Moorhen
 American & Least Bitterns
 Sora
 Sedge Wren

Mammals

Bobcat
 New England Cottontail

Sedge Wren Habitat Model



Habitat Features

- Moist meadows, pastures, hayfields with dense sedges and grasses.

What to Map?

- PEM wetlands
- Fields with hydric A soils.

Sedge Wren Habitat Model

Habitat Features (Extended)

- Sedge meadows, especially Tussock Sedge
- Prefers wet meadows with brooks flowing through

What to Map?

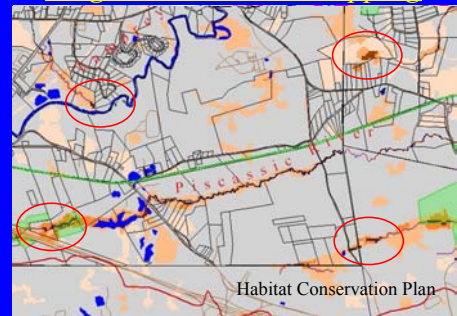
- Muck & Peat Soils (preferred substrate for Tussock Sedge)
- Perennial streams co-occurring with PEM wetlands

Sedge Wren Habitat Model

Weighted Data Factors

- | | |
|-------------------------------------|-------|
| • PEM Wetlands | 3 pts |
| • Wet Fields | 3 pts |
| • Muck & Peat Soils | 2 pts |
| • Streams connecting wetlands | 2 pts |
| • Hydric A Soils | 1 pt |
| • Fields, old fields, powerline ROW | 1 pt |

Sedge Wren Habitat Mapping



Field Verification

Reptiles - RAARP observations



Blanding's



Spotted



Wood

Field Verification

Reptiles - RAARP observations



Black Racer



Eastern Hognose

Field Verification

Wetland Birds – ASNH
Broadcast Call Surveys



0 of 15 polygons

Field Verification

Grassland Birds - Point Counts



Grasshopper sparrow



Upland sandpiper

0 of 9 polygons

Field Verification

Warblers - Point Counts



Blue-winged warbler



Golden-winged warbler

BWWA 4 of 10 polygons

Field Verification

Woodcock & Whip-poor-will



3 of 15 polygons



0 of 7 polygons

2 AMWO polys

Field Verification

New England Cottontail



1 of 19 polygons

Next Steps

No spp observed = bad habitat?

Finish evaluating habitat quality data.

Full report by end of December

www.nh.gov/nhep/

joepler@wildlife.state.nh.us

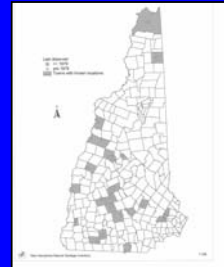
New Hampshire's Comprehensive Wildlife Conservation Plan



Comprehensive Plan Distribution & Abundance

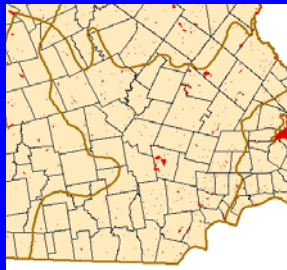


Wood turtle can
currently be
found...



Comprehensive Plan Location & Condition

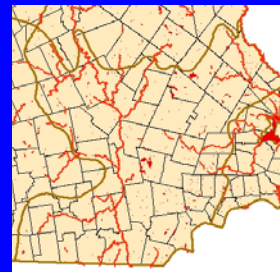
Wood turtle
habitat is
currently
located...



*Hypothetical
Map*

Comprehensive Plan Potential Habitat

Potential
wood turtle
habitat
includes...



*Hypothetical
Map*

Comprehensive Plan Potential Threats

Wood turtle pops are being
threatened by....



Comprehensive Plan Conservation actions

To conserve wood turtles we
recommend....

- Conserving key habitats
 - land conservation
 - outreach to landowners
- Educating the public to deter collection
- Improve development planning

